

**REMARKS**

This is intended as a full and complete response to the Office Action dated July 15, 2004, having a shortened statutory period for response set to expire on October 15, 2004. Please reconsider the claims pending in the application for reasons discussed below.

Claims 1-20 remain pending in the application and are shown above. Claim 1 is rejected and claims 12-20 are indicated to be allowable by the Examiner. Claims 2-11 are objected to as being dependent on a rejected base claim. Claim 1 has been amended by the Applicant to further clarify the invention. Claims 2 and 9 have been rewritten in independent form to include the limitations of claim 1. Reconsideration of the rejected claims is requested for reasons presented below.

Claim 1 stands rejected under 35 U.S.C. §103(a) as being unpatentable over *Ferenbach, et al.*, U.S. Patent No. 4,746,417 in view of *Miller, et al.*, U.S. Patent No. 5,171,415. Applicant respectfully traverses the rejection. The references, in combination, do not teach, suggest, or provide motivation for an apparatus for cooling a magnetron, having, a target assembly, a cooling cavity having an outlet port disposed therein, a magnetron disposed in the cooling cavity in a spaced-apart relation to the target assembly, a stationary conduit, a rotary union having a stationary housing coupled to the stationary conduit; and a hollow drive shaft having a first end coupled to the stationary housing of the rotary union by a spring, and having a second end coupled to the magnetron, wherein a flowpath is defined extending co-axially from the second end of the hollow drive shaft to a portion of a target assembly, as recited by claim 1. Withdrawal of the rejection to claim 1, is respectfully requested.

Claim 1 stands rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 and 19-27 of U.S. Patent No. 6,641,701 in view of *Miller, et al.*, U.S. Patent No. 5,171,415. The Applicant has timely filed a terminal disclaimer, which is submitted with this response.

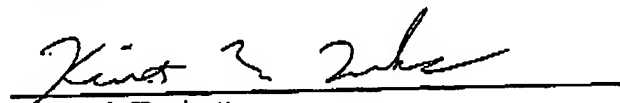
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In conclusion, the references cited by the Examiner, alone or in combination, do not teach, show, or suggest the invention as claimed.

Having addressed all issues set out in the office action, Applicant respectfully submits that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,



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